Amendments to the Claims

The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Original) A method for interacting with a client in a distributed computing environment having a plurality of computing nodes interconnected to form a cluster, the method comprising:

connecting a client to a master node of the cluster;
associating a message list to the client on the master node;
performing tasks for the client on a plurality of nodes of the cluster;
detecting an event while performing one of the tasks;
storing a message on the message list descriptive of the detected event; and
communicating the message to the client.

2. (Original) The method of Claim 1 wherein the event is detected on a node different from the master node.

3. (Original) The method of Claim 1 further comprising, on the master node, establishing an object unique to the client for interfacing with the client.

4. (Original) The method of Claim 3 wherein the object is accessible across the cluster.

5. (Original) The method of Claim 1 wherein communicating comprises formatting a message code into a message string.

6. (Original) The method of Claim 1 wherein storing comprises formatting a message code into a message string.

7. (Original) The method of Claim 1 further comprising structuring the message list as a stack.

8. (Original) The method of Claim 1 further comprising failing over the master node to another node on the cluster in response to a failover event on the master node.

9. (Original) The method of Claim 1 wherein the event is an error event.

10. (Original) The method of Claim 1 wherein the event is a dialogue event.

11. (Previously Presented) A method for interacting with a client in a distributed computing environment having a plurality of computing nodes interconnected to form a cluster, the method comprising:

connecting a client to a master node of the cluster;

creating a distributed object on the master node to interface with the client;

associating a client manager having a message list with the client on the master node;

performing tasks for the client on a plurality of nodes of the cluster;

detecting an event while performing one of the tasks;

storing a message on the message list descriptive of the detected event; and

communicating the message to the client through the distributed object.

12. (Original) The method of Claim 11 further comprising, in the client manager, tracking a plurality of contexts for the client, each context having a respective message list.

13. (Original) The method of Claim 11 wherein the event is detected on a node different from the master node.

14. (Original) The method of Claim 11 wherein communicating comprises formatting a message code into a message string.

15. (Original) The method of Claim 11 wherein storing comprises formatting a message code into a message string.

16. (Original) The method of Claim 11 further comprising structuring the message list as a stack.

17. (Original) The method of Claim 11 further comprising failing over the master node to another node on the cluster in response to a failover event on the master node.

18. (Original) The method of Claim 11 wherein the event is an error event.

19. (Original) The method of Claim 11 wherein the event is a dialogue event.

20. (Original) A system for interacting with a client in a distributed computing environment having a plurality of computing nodes interconnected to form a cluster, the system comprising:

a master node of the cluster connected to a client;

a message list associated with the client on the master node;

a plurality of tasks executing for the client on a plurality of nodes of the cluster;

an event detected while performing one of the tasks;

a message stored on the message list descriptive of the detected event; and

an interface for communicating the message to the client.

21. (Original) The system of Claim 20 wherein the event is detected on a node different from the master node.

22. (Original) The system of Claim 20 further comprising, on the master node, an object unique to the client for interfacing with the client.

23. (Original) The system of Claim 22 wherein the object is accessible across the cluster.

24. (Original) The system of Claim 20 wherein a message code is formatted into a message string for communication to the client.

25. (Original) The system of Claim 20 wherein a message code is formatted into a message string for storage on the message list.

26. (Original) The system of Claim 20 wherein the message list is structured as a stack.

27. (Original) The system of Claim 20 further comprising a fail safe module for failing over the master node to another node on the cluster in response to a failover event on the master node.

28. (Original) The system of Claim 20 wherein the event is an error event.

29. (Original) The system of Claim 20 wherein the event is a dialogue event.

30. (Previously Presented) A system for interacting with a client in a distributed computing environment having a plurality of computing nodes interconnected to form a cluster, the system comprising:

a master node of the cluster connected to a client;

a distributed object on the master node to interface with the client;

a client manager having a message list associated with the client on the master node;

a plurality of tasks for the client executing on a plurality of nodes of the cluster;

an event detected while performing one of the tasks;

a message stored on the message list descriptive of the detected event; and

an interface for communicating the message to the client through the distributed object.

31. (Original) The system of Claim 30 further comprising a plurality of contexts for the client, each context having a respective message list and tracked by the client manager.

32. (Original) The system of Claim 30 wherein the event is detected on a node different from the master node.

33. (Original) The system of Claim 30 wherein a message code is formatted into a message string for communication to the client.

34. (Original) The system of Claim 30 wherein a message code is formatted into a message string for storage on the message list.

35. (Original) The system of Claim 30 wherein the message list is structured as a stack.

36. (Original) The system of Claim 30 further comprising a fail over module for failing over the master node to another node on the cluster in response to a failover event on the master node.

37. (Original) The system of Claim 30 wherein the event is an error event.

38. (Original) The system of Claim 30 wherein the event is a dialogue event.

39. (Original) An article of manufacture, comprising

a computer usable medium;

a set of program instructions recorded on the medium, including a method for interacting with a client in a distributed computing environment having a plurality of computing nodes interconnected to form a cluster, the method comprising:

connecting a client to a master node of the cluster;

associating a message list to the client on the master node;

performing tasks for the client on a plurality of nodes of the cluster;

detecting an event while performing one of the tasks;

storing a message on the message list descriptive of the detected event;

and

communicating the message to the client.

40. (Original) The article of Claim 39 wherein the event is detected on a node different from the master node.

41. (Original) The article of Claim 39 wherein the method further comprises, on the master node, establishing an object unique to the client for interfacing with the client.

42. (Original) The article of Claim 41 wherein the object is accessible across the cluster.

43. (Original) The article of Claim 39 wherein communicating comprises formatting a message code into a message string.

44. (Original) The article of Claim 39 wherein storing comprises formatting a message code into a message string.

45. (Original) The article of Claim 39 wherein the method further comprises structuring the message list as a stack.

46. (Original) The article of Claim 39 wherein the method further comprises failing over the master node to another node on the cluster in response to a failover event on the master node.

47. (Original) The article of Claim 39 wherein the event is an error event.

48. (Original) The article of Claim 39 wherein the event is a dialogue event.

49. (Previously Presented) An article of manufacture, comprising:

a computer usable medium;

a set of program instructions recorded on the medium, including a method for interacting with a client in a distributed computing environment having a plurality of computing nodes interconnected to form a cluster, the method comprising:

connecting a client to a master node of the cluster;

creating a distributed object on the master node to interface with the client;

associating a client manager having a message list with the client on the master node;

performing tasks for the client on a plurality of nodes of the cluster;

detecting an event while performing one of the tasks;

storing a message on the message list descriptive of the detected event; and

communicating the message to the client through the distributed object.

50. (Original) The article of Claim 49 wherein the method further comprises, in the client manager, tracking a plurality of contexts for the client, each context having a respective message list.

51. (Original) The article of Claim 49 wherein the event is detected on a node different from the master node.

52. (Original) The article of Claim 49 wherein communicating comprises formatting a message code into a message string.

53. (Original) The article of Claim 49 wherein storing comprises formatting a message code into a message string.

54. (Original) The article of Claim 49 wherein the method further comprises structuring the message list as a stack.

55. (Original) The article of Claim 49 wherein the method further comprises failing over the master node to another node on the cluster in response to a failover event on the master node.

56. (Original) The article of Claim 49 wherein the event is an error event.

57. (Original) The article of Claim 49 wherein the event is a dialogue event.

58. (Previously Presented) A system for interacting with a client in a distributed computing environment having a plurality of computing nodes interconnected to form a cluster, the system comprising:

means for connecting a client to a master node of the cluster;

means for associating a message list to the client on the master node;

means for performing tasks for the client on a plurality of nodes of the cluster;

means for detecting an event while performing one of the tasks;

means for storing a message on the message list descriptive of the detected event; and

means for communicating the message to the client.

59. (Previously Presented) A method for interacting with a client in a distributed computing environment having a plurality of computing nodes interconnected to form a cluster, the method comprising:

connecting a client to a master node of the cluster;

creating a distributed object on the master node to interface with the client;

associating a client manager having a message list with the client on the master node, wherein the message list is structured as a stack;

in the client manager, tracking a plurality of contexts for the client, each context having a respective message list;

performing tasks for the client on a plurality of nodes of the cluster;

detecting an event while performing one of the tasks;

storing a message on the message list descriptive of the detected event; and

communicating the message to the client through the distributed object.

60. (Previously Presented) The method of Claim 59 wherein the distributed object is a synchronous call interface.

61. (Previously Presented) The method of Claim 60 wherein the synchronous call interface does not require network semantics.

62. (Previously Presented) A system for interacting with a client in a distributed computing environment having a plurality of computing nodes interconnected to form a cluster, the system comprising:

a master node of the cluster connected to a client;

a distributed object on the master node to interface with the client;

a client manager having a message list associated with the client on the master node, wherein the message list is structured as a stack;

in the client manager, a plurality of contexts for the client, each context having a respective message list;

a plurality of tasks for the client executing on a plurality of nodes of the cluster;

an event detected while performing one of the tasks;

a message stored on the message list descriptive of the detected event; and

an interface for communicating the message to the client through the distributed object.

63. (Previously Presented) The system of Claim 62 wherein the distributed object is a synchronous call interface.

64. (Previously Presented) The system of Claim 63 wherein the synchronous call interface does not require network semantics.

65. (Previously Presented) An article of manufacture, comprising:

a computer usable medium;

a set of program instructions recorded on the medium including a method for interacting with a client in a distributed computing environment having a plurality of computing nodes interconnected to form a cluster, the method comprising:

connecting a client to a master node of the cluster;

creating a distributed object on the master node to interface with the client;

associating a client manager having a message list with the client on the master node, wherein the message list is structured as a stack;

in the client manager, tracking a plurality of contexts for the client, each context having a respective message list;

performing tasks for the client on a plurality of nodes of the cluster;

detecting an event while performing one of the tasks;

storing a message on the message list descriptive of the detected event; and

communicating the message to the client through the distributed object.

66. (Previously Presented) The article of Claim 59 wherein the distributed object is a synchronous call interface.

67. (Previously Presented) The article of Claim 60 wherein the synchronous call interface does not require network semantics.

68. (Previously Presented) A system for interacting with a client in a distributed computing environment having a plurality of computing nodes interconnected to form a cluster, the method comprising:

means for connecting a client to a master node of the cluster;

means for creating a distributed object on the master node to interface with the client;

means for associating a client manager having a message list with the client on the master node, wherein the message list is structured as a stack;

in the client manager, means for tracking a plurality of contexts for the client, each context having a respective message list;

means for performing tasks for the client on a plurality of nodes of the cluster;

means for detecting an event while performing one of the tasks;

means for storing a message on the message list descriptive of the detected event;

and

means for communicating the message to the client through the distributed object.